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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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52349 7590 10/31/2007 WENDEROTH, LIND & PONACK L.L.P. 2033 K. STREET, NW SUITE 800 WASHINGTON, DC 20006			EXAMINER ZAHRA, ASHRAF A	
			ART UNIT 4135	PAPER NUMBER
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/582,386

Applicant(s)

YAMASHITA ET AL.

Examiner

Ashraf Zahr

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 6/9/2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-17 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-17 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 6/9/2006 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- ☒ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☒ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date 6/9/06.
- ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- ☐ Notice of Informal Patent Application
- ☐ Other: _____.

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DETAILED ACTION

1. The application was filed on 6/9/2006 and the information disclosure statement (IDS) was filed on 6/9/2006. The submission is in compliance with the provisions of 37 CFR 1.97. Accordingly, the examiner is considering the information disclosure statement.

2. Claims 1-17 are pending in the case.

Claim Rejections - 35 USC § 101

3. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

4. Claims 1-17 rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter.

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

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6. Claims 1-6, 12-17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Takano, US Patent 5,764,214 (Hereinafter, Takano) in view of Shitahaku US 2002/0037753 (Hereinafter, Shitahaku).

Regarding Claim 1, Takano discloses, “a display screen management unit of switching and displaying a plurality of screens on a display by screen transition”. Specifically, Takano discloses a display control unit (Takano, col 6, ln 20-27).

Takano also discloses, “a saving section of saving screen information about the plurality of screens”. Specifically, Takano discloses a display control attribute storage portion (Takano, col 6, ln 33-35).

Takano also discloses, “an instruction section of providing an instruction to switch a currently displayed screen in response to an external request”. Specifically, Takano discloses a display instruction portion for generating a display processing sequence indicative of a procedure of the display processing based on the display control attributes stored in the display attribute storage portion (Takano, col 6, ln 37-39).

Takano also discloses, “ screen control section of controlling a display on the display in accordance with the instruction from the instruction section”. Specifically, Takano discloses a display processing sequence generation portion responsive to display operation commands issued by the display instruction portion (Takno, col 6, ln 37-39).

Takano does not specifically disclose, “a screen discard determination section of comparing the currently displayed screen with a switching target screen indicated by the

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instruction section based on the screen information saved in the saving section, to determine whether or not the currently displayed screen is discarded". However, Shitahaku remedies this with the upon reception of a quit instruction from the application 1 (step S10 in FIG. 3), the operation control section 21 records, in the operation state data storage section 24, the quit state of the application from which the quit instruction was received, and instructs the history management section 22 to erase the history information (step S11 in FIG. 3) (Shitahaku, ¶0045). It would be obvious to one of ordinary skill in the art at the time of the invention to combine history management section of Shitahaku with the display controller in Takano. The motivation to do so would be to obtain memory capacity savings (Shitahaku, ¶0047).

Takano also does not specifically disclose, "wherein, when the screen discard determination section determines that the currently displayed screen is discarded, the screen control section discard information about the currently displayed screen from the saving section". However, Shitahaku remedies this with when the application quits, the history management section 22 searches the priority data storage section 25 for an application to be displayed next and displays it (Shitahaku, ¶0045). It would be obvious to one of ordinary skill in the art at the time of the invention to combine history management section of Shitahaku with the display controller in Takano. The motivation to do so would be to obtain memory capacity savings (Shitahaku, ¶0047).

Regarding Claim 2, Takano also discloses, "the display screen management unit according to claim 1, wherein the saving section includes a screen resource saving

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section of saving a screen resource for a screen to be displayed on the display”.

Specifically, Takano discloses display control attributes are stored in a display control attribute storage portion (Takano, col 6, ln 33-35).

Takano also discloses, “when instructed to switch screens from the instruction section, the screen control section generates a screen resource for the switching target screen”. Specifically, the attribute selection portion 321(1) newly generates a display control attribute table to which a display control attribute and an attribute value suited for the display processing request are set (Takano, col 9, ln 40-47).

Takano also discloses, “saves the generated screen resource into the screen resource saving section”. Specifically, an attribute value suited for the display processing request are set, and stores the table in the display attribute storage portion 313 (Step 409) (Takano, col 9, ln 40-47).

Takano does not disclose, “requests the screen discard determination section to determine whether or not the currently displayed screen is discarded”. However, Shitahaku remedies this with when the application quits, the history management section 22 searches the priority data storage section 25 for an application to be displayed next and displays it (Shitahaku, ¶0045). It would be obvious to one of ordinary skill in the art at the time of the invention to combine history management section of Shitahaku with the display controller in Takano. The motivation to do so would be to obtain memory capacity savings (Shitahaku, ¶0047).

Regarding Claim 3, Takano does not specifically disclose, “the display screen management unit according to claim 2, wherein, when the screen discard determination section determines that the currently displayed screen is discarded, the screen control section discards a screen resource for the screen determined to be discarded, from the screen resource saving section”. However, Shitahaku remedies this with the upon reception of a quit instruction from the application 1 (step S10 in FIG. 3), the operation control section 21 records, in the operation state data storage section 24, the quit state of the application from which the quit instruction was received, and instructs the history management section 22 to erase the history information (step S11 in FIG. 3) (Shitahaku, ¶0045). It would be obvious to one of ordinary skill in the art at the time of the invention to combine history management section of Shitahaku with the display controller in Takano. The motivation to do so would be to obtain memory capacity savings (Shitahaku, ¶0047).

Regarding Claim 4, Takano also discloses, “an initial screen information saving section of saving initial screen information which prescribes initial screen 20 information”. Specifically, the plurality of the display control attribute tables 501(1) to 501(n), which have a probability of being referred to at the time of display updating, are stored in advance in the display attribute storage portion 313 of the display control unit (Takano, col 9, ln 10-15).

Takano also discloses, “a screen information saving section of saving the currently displayed screen information and the switching target screen information”.

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Specifically, an attribute value suited for the display processing request are set, and stores the table in the display attribute storage portion 313 (Step 409) (Takano, col 9, ln 40-47).

Takano also discloses, "when providing an instruction to switch the currently displayed screen, the instruction section reads out initial screen information about the switching target screen from the initial screen information saving section, and notifies the screen control section of the read initial screen information" The display updating processing portion 111 executes mask updating processing and frame display processing step by step according to the definitions of the frames 601 to 610 of the display processing sequence generated in Step 203 and outputs the result to the display 20 (Step 204) (Takano, col 7, ln 45-50).

Takano also discloses, "the screen control section saves the notified initial screen information as the switching target screen information into the screen information saving section". Specifically, the attribute selection portion 321(1) newly generates a display control attribute table to which a display control attribute and an attribute value suited for the display processing request are set, and stores the table in the display attribute storage portion 313 (Step 409) (Takano, col 9, ln 40-49).

Regarding Claim 5, Takano does not specifically disclose, "the display screen management unit according to claim 4, wherein, when the screen discard determination section determines that the currently displayed screen is discarded, the screen control section discards screen information about the screen determined to be discarded, from

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the screen information saving section". However, Shitahaku remedies this with the upon reception of a quit instruction from the application 1 (step S10 in FIG. 3), the operation control section 21 records, in the operation state data storage section 24, the quit state of the application from which the quit instruction was received, and instructs the history management section 22 to erase the history information (step S11 in FIG. 3) (Shitahaku, ¶0045). It would be obvious to one of ordinary skill in the art at the time of the invention to combine history management section of Shitahaku with the display controller in Takano. The motivation to do so would be to obtain memory capacity savings (Shitahaku, ¶0047).

Regarding Claim 6, Takano also discloses, "the display screen management unit according to claim 1, wherein, when the whole or a part of the currently displayed screen is displayed simultaneously with the switching target screen, the screen discard determination section determines that the currently displayed screen is not discarded, and when the currently displayed screen is completely hidden by the switching target screen, the screen discard determination section determines that the currently displayed screen is discarded. Specifically, Takano discloses sharing the display control attributes of the display attribute storage portion 113 obviates the need to prepare attributes for each of the application units 12(1) to 12(n), thereby reducing the volume of attribute data to be stored in the display attribute storage portion 113 (Takano, col 8, In 4-9).

Regarding Claim 12, Takano discloses, "wherein the registration section notifies the screen control section of all initial screen information saved in the initial screen information saving section". Specifically, Takano discloses a display processing sequence generation portion responsive to display operation commands issued by the display instruction portion (Takano, col 6, ln 37-39).

Takano also discloses, "and the screen control section saves the initial screen information notified of by the registration section as the screen information into the screen information saving section". Specifically, Takano discloses display control attributes are stored in a display control attribute storage portion (Takano, col 6, ln 33-35).

However, Takano does not specifically disclose, "The display screen management unit according to claim 4, further comprising: a registration section of registering initial screen information saved in the initial screen information saving section via the screen control section into the screen information saving section". However, Shitahaku discloses the operation state data storage section store the launch and quite state of each application (Shitahaku, ¶0039). It would be obvious to one of ordinary skill in the art at the time of the invention to combine history management section of Shitahaku with the display controller in Takano. The motivation to do so would be to facilitate the switching of windows without increasing memory capacity (Shitahaku, ¶0050).

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Regarding Claim 13, Takano also discloses, "the display screen management unit according to claim 12, further comprising: a communications section of obtaining application data including screen information via an external network". Specifically, In a network, in particular, since one display operation needs only one command, no performance degradation is caused even when the application units 12(1) to 12(n) and the display control unit 11 are provided at different positions in the low-speed network (Takano, col 7, ln 65 – col 8 ln 4).

Takano also discloses, "a screen information extraction section of extracting the screen information from the application data obtained by the communications section". Specifically, Takano discloses Also in a case where a plurality of application units 12(1) to 12(n) are provided, sharing the display control attributes of the display attribute storage portion obviates the need to prepare attributes for each of the application units 12(1) to 12(n) (Takano, col 8, ln 4-10).

Takano also discloses, "wherein the registration section notifies the screen control section of the screen information extracted by the screen information extraction section". Specifically, Takano discloses a display processing sequence generation portion responsive to display operation commands issued by the display instruction portion (Takano, col 6, ln 37-39).

Takano also discloses, "and the screen control section saves the notified screen information into the screen information saving section". Specifically, Takano discloses display control attributes are stored in a display control attribute storage portion (Takano, col 6, ln 33-35).

Regarding Claim 14, Takano also discloses, “a display screen management method of switching and displaying a plurality of screens on a display by screen transition”. Specifically, Takano discloses a display control unit (Takano, col 6, ln 20-27).

Takano also discloses, “providing an instruction to switch a currently displayed screen in response to an external request”. Specifically, Takano discloses a display instruction portion for generating a display processing sequence indicative of a procedure of the display processing based on the display control attributes stored in the display attribute storage portion (Takano, col 6, ln 37-39).

Takano also discloses, “controlling a display on the display in accordance with the instruction from the instruction step”. Specifically, Takano discloses a display processing sequence generation portion responsive to display operation commands issued by the display instruction portion (Takano, col 6, ln 37-39).

Takano does not specifically disclose, “determining whether or not the currently displayed screen is discarded, by comparing the currently displayed screen with the indicated switching target screen based on previously saved screen information”. However, Shitahaku remedies this with the upon reception of a quit instruction from the application 1 (step S10 in FIG. 3), the operation control section 21 records, in the operation state data storage section 24, the quit state of the application from which the quit instruction was received, and instructs the history management section 22 to erase the history information (step S11 in FIG. 3) (Shitahaku, ¶0045). It would be obvious to

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one of ordinary skill in the art at the time of the invention to combine history management section of Shitahaku with the display controller in Takano. The motivation to do so would be to obtain memory capacity savings (Shitahaku, ¶0047).

Takano also does not specifically disclose, “discarding information about the currently displayed screen when the determining step determines that the currently displayed screen is discarded”. However, Shitahaku remedies this with when the application quits, the history management section 22 searches the priority data storage section 25 for an application to be displayed next and displays it (Shitahaku, ¶0045). It would be obvious to one of ordinary skill in the art at the time of the invention to combine history management section of Shitahaku with the display controller in Takano. The motivation to do so would be to obtain memory capacity savings (Shitahaku, ¶0047).

Regarding Claim 15, Takano also does not specifically disclose, “the display screen management method according to claim 14, wherein, in the step of discarding the information about the currently displayed screen, a screen resource for a screen determined in the determining step to be discarded, is discarded”. However, Shitahaku remedies this with the upon reception of a quit instruction from the application 1 (step S10 in FIG. 3), the operation control section 21 records, in the operation state data storage section 24, the quit state of the application from which the quit instruction was received, and instructs the history management section 22 to erase the history information (step S11 in FIG. 3) (Shitahaku, ¶0045). It would be obvious to one of

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ordinary skill in the art at the time of the invention to combine history management section of Shitahaku with the display controller in Takano. The motivation to do so would be to obtain memory capacity savings (Shitahaku, ¶0047).

Regarding Claim 16, Takano also discloses, “the display screen management method according to claim 14, wherein, in the step of determining whether or not the currently displayed screen is discarded, when the whole or a part of the currently displayed screen is displayed simultaneously with the switching target screen, it is determined that the currently displayed screen is not discarded”. Specifically, Takano discloses sharing the display control attributes of the display attribute storage portion 113 obviates the need to prepare attributes for each of the application units 12(1) to 12(n), thereby reducing the volume of attribute data to be stored in the display attribute storage portion 113 (Takano, col 8, ln 4-9).

Takano also does not specifically disclose, “and when the currently displayed screen is completely hidden by the switching target screen, it is determined that the currently displayed screen is discarded”. However, Shitahaku remedies this with the upon reception of a quit instruction from the application 1 (step S10 in FIG. 3), the operation control section 21 records, in the operation state data storage section 24, the quit state of the application from which the quit instruction was received, and instructs the history management section 22 to erase the history information (step S11 in FIG. 3) (Shitahaku, ¶0045). It would be obvious to one of ordinary skill in the art at the time of the invention to combine history management section of Shitahaku with the display

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controller in Takano. The motivation to do so would be to obtain memory capacity savings (Shitahaku, ¶0047).

Regarding Claim 17, applicant claims a program to carry out the method of claim 14. This claim is substantially similar to claim number 14 and is therefore rejected based upon the same reasoning used to reject claim 14.

Claims 7-11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Takano, US Patent 5,764,214 (Hereinafter, Takano) in view of Shitahaku US 2002/0037753 (Hereinafter, Shitahaku) and in further view of Hourvitz et al., US 5,388,201 (Hereinafter, Hourvitz)

Regarding Claim 7, Takano and Shitahaku do not specifically disclose, "the display screen management unit according to claim 6, wherein the screen information includes information indicating a screen size, and the screen discard determination section uses the screen size indicating information included in the screen information to determine whether or not the currently displayed screen is discarded. However, Hourvitz remedies this with the disclosure of a controller is used to monitor window size, position and status (active or non-active) (Hourvitz, col 1, ln 36-39).). It would be obvious to one of ordinary skill at the time of the invention to these references to add the feature of using screen size information to determine whether or not the screen is

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discarded. The motivation to do so would be to determine which part of the screen is visible to redraw the visible regions (Hourvitz, col 2, ln 3-7).

Regarding Claim 8, Takano and Shitahaku do not specifically disclose, "the display screen management unit according to claim 6, wherein the screen information includes information indicating a screen position, and the screen discard determination section uses the screen position indicating information included in the screen information to determine whether or not the currently displayed screen is discarded. However, Hourvitz remedies this with the disclosure of a controller is used to monitor window size, position and status (active or non-active) (Hourvitz, col 1, ln 36-39). It would be obvious to one of ordinary skill at the time of the invention to these references to add the feature of using screen position information to determine whether or not the screen is discarded. The motivation to do so would be to determine which part of the screen is visible to redraw the visible regions (Hourvitz, col 2, ln 3-7).

Regarding Claim 9, Takano and Shitahaku do not specifically disclose, "the display screen management unit according to claim 6, wherein the screen information includes residence information indicating whether a screen is resident or non-resident, and when it is determined based on the residence information included in the screen information that the currently displayed screen is resident, the screen discard determination section determines that the currently displayed screen is not discarded. However, Hourvitz remedies this with the disclosure of a controller is used to monitor

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window size, position and status (active or non-active) (Hourvitz, col 1, ln 36-39). It would be obvious to one of ordinary skill at the time of the invention to these references to add the feature of using screen position information to determine whether or not the screen is discarded. The motivation to do so would be to determine which part of the screen is visible to redraw the visible regions (Hourvitz, col 2, ln 3-7).

Regarding Claim 10, Takano discloses, "the display screen management unit according to claim 6, wherein the screen information includes a display time from when a screen is displayed to when the screen goes to a non-displayed state, and when it is determined based on the display time that the switching target screen display time is shorter than a predetermined time, the screen discard determination section determines that the currently displayed screen is not discarded. Specifically, Takano discloses n the display control attribute table 501 are various attribute values 503 including a processing time of visual effects, wipe patterns (contents and times of processings such as wipe, fade-in/fade-out, zoom-in/zoom-out). In FIG. 5, 503a to 503e are defined as the contents of the attribute values 503 (Takano, col 6, ln 53-56).

Regarding Claim 11, Takano also discloses, "the display screen management unit according to claim 6, wherein the screen information includes mask information about a screen, and the screen discard determination section uses the mask information included in the screen information to determine whether or not the currently displayed screen is discarded. Specifically, Takano discloses the display updating

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processing portion 111 executes mask updating processing and frame display processing step by step according to the definitions of the frames 601 to 610 of the display processing sequence generated in Step 203 and outputs the result to the display 20 (Step 204). Determination is made as to whether the display processing sequence 600 is terminated (up to frame 610) or not (Step 205). If not terminated, Step 204 will be repeated. If the processing is finished, the entire processing will end. The other application units operate in the same manner) (Takano, col 7, ln 45-55).

Conclusion

7. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Beattie et al., US 5,386,505: Selective Control of Window Related Overlays and Underlays

Takishita et al., US 5,900,859: Switch-Image Display Method and Display Apparatus Thereof

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ashraf Zahr whose telephone number is (571) 270-1973. The examiner can normally be reached on Mon.-Thurs., 7:30 am - 5 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Frantz Coby can be reached on (571) 272-4017. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

AAZ
10/25/07


FRANTZ COBY
SUPERVISORY PATENT EXAMINER